UNITED STATES ARMY SPACE COMMAND
TASK ORDER

1. **CONTRACTOR NAME AND ADDRESS:**
Stanford Telecommunications, Inc.,
SATCOM Ground Systems (SGS)
5009 Centennial Blvd.
Colorado Springs, CO 80919-2401
(719)594-4475

2. **CONTRACT NO.:** DASG62-97-D-0001

3. **CLIN NO.:** 6000

4. **TASK ORDER NO.: 98-26 (REV 1)**

5. **PROGRAM MANAGER SIGNATURE:**

_____
Michael J. Mackenzie
Contracting Officer's Representative

6. **TECHNICAL REPRESENTATIVE:**
Mr. David Morrissey
PM DCATS
AMSEL-DSA-TSD
Ft. Monmouth, NJ 07703
(732) 532-9728, x5808,
Fax: (732) 532-1908
E-mail Address: morrissd@doim6.monmouth.army.mil

7. **APPLICABLE PARAGRAPHS OF THE STATEMENT OF WORK:**
C. 4.8, 5.

8. **DESCRIPTION OF WORK TO BE PERFORMED:**

Acquisition, installation, test and checkout of modifications to the Defense Satellite Communications System (DSCS) Operational Support System (DOSS) (AN/FYQ-110) and associated DOSS Local Area Network (LAN) currently installed at DSCS Operations Centers (DSCSOCs) and Defense Information System Agency (DISA) and United States Army Space(ARSPACE) Command Management sites (subsequently to be referred to as DSCS Management sites) to meet future processing and data exchange requirements as defined in the Objective Defense Satellite Communications System (DSCS) Operations Control System (ODOCS) Architecture Description Document and to achieve Joint Technical Architecture-Army (JTA-Army) compliance.

See continuation pages.

9. **GOVERNMENT ESTIMATED LEVEL OF EFFORT:**
$9,753,639.00

10. **DELIVERIES OR PERFORMANCE REQUIREMENTS:**
Period of Performance is from date of delivery order award through 30 Jun 00.

11. **THIS TASK ORDER IS ISSUED PURSUANT TO THE "TASK ORDER PROCEDURES" CLAUSE OF THE CONTRACT.**

_____ _____ **DARYLL L. NOTTINGHAM**
Signature of Contracting Officer **DATE** **CONTRACTING OFFICER**

8.0 DESCRIPTION OF WORK TO BE PERFORMED.

8.1 INTRODUCTION.

8.1.1 Background.

The DSCS Operational Support System (DOSS), AN/FSQ-110 and the associated DOSS LAN currently fielded at the DSCS Operations Centers (DSCSOC's) and DSCS Management sites will not support the computing and data exchange requirements necessary to achieve the capabilities delineated in the Objective DSCS Operations Center (ODOC) Operational Requirements Document (ORD). Those requirements as quantified in the ODOCS Architecture Description Document necessitate a complete reconfiguration of the DOSS and DOSS LAN to include hardware and associated software, firmware and middleware. The scope of effort will encompass installation of additional resources as well as upgrade or replacement of existing components. FY99 funds are available for this effort. The reconfiguration of the DOSS and LAN must be sufficiently complete to support testing of DSCS Integrated Management System (DIMS) Version 3.0 software currently scheduled to begin the 4th quarter of Fiscal Year (FY) 99.

8.1.2 Scope.

The Contractor shall provide all services and materials including procurement of necessary spare components necessary to reconfigure the DOSS and associated DOSS LAN to meet the processing and data exchange requirements delineated in the ODOCS Architecture Description Document, to revise all the DOSS technical data to accurately and completely document the new DOSS and DOSS LAN configuration, and to implement the new DOSS and DOSS LAN configuration at all operational DSCS sites as well as Ft. Gordon, GA and Ft. Monmouth, NJ.

8.2 APPLICABLE DOCUMENTS.

The following documents, of the issue and date specified, form a part of this Task Order (TO) to the extent necessary to execute the tasks stated herein. In the event of conflict between the documents referenced herein and the Task Order, the content of this Task Order shall take precedence.

a. Objective Defense Satellite Communications System (DSCS) Operations Control System (ODOCS) Architecture Description Document, 16 Feb 98.

b. Technical Manual, Operator's Manual with Maintenance Allocation Chart (MAC), DSCS Operational Support System, TM 11-5895-1563-10, with Change #1 dated 31 March 1998.

c. Technical Manual, Unit and Direct Support Maintenance Repair Parts and Special Tools List for the DSCS Operational Support System, TM 11-5895-1563-23P, 1 Jul 96.

d. Technical Data Package for the DOSS

e. Joint Technical Architecture-Army, Ver 5.0, dated 11 September 1997.

8.3 REQUIREMENTS

8.3.1 Upgrade of the DOSS and LAN . The contractor shall procure the hardware and software components delineated in Appendix B to upgrade the DOSS LAN, perform in-plant test and burn-in of those components and install, test and check-out the components in the quantities and at the locations listed in Appendix B-1. The contractor shall also procure the hardware and software components delineated in Appendix C to upgrade the DOSS, perform in-plant test and burn-in of those components and subsequent to successful upgrade of the DOSS LAN install, test and check-out the components in the quantities and at the locations identified in Appendix C-1. As a separately priced option, pending availability of funds, the contractor shall procure the hardware and software delineated in Appendix D for use as CORBA servers, perform in-plant test and burn-in of those servers and install, test and check-out the servers in conjunction with the DOSS upgrade in the quantities and at the locations listed in Appendix D. As a second separately priced option the contractor, pending the availability of funds, shall procure the hardware and software components delineated in Appendix E for use as Subsystem Traffic Manager (STM) servers, perform in-plant test and burn-in of those servers and install, test and check-out the STM servers in conjunction with the DOSS upgrade in the quantities and at the locations identified in Appendix E. As a third separately priced option, pending the availability of funds, the contractor shall procure the items in Appendix F, perform in-plant test and burn-in of the components and install, test and check-out the components at the DSCS management site near MacDill Air Force Base in Tampa, FL. The schedule of installation of the above equipment at each site shall require concurrence from DISA and ARSPACE.

8.3.2 Spares The contractor shall procure the initial item DOSS LAN spares identified in Appendix G, perform test and burn-in of these spare components and deliver them to each site in the quantities specified in Appendix G in conjunction with installation of the LAN at each site. The contractor shall procure the Depot DOSS LAN spares identified in Appendix G, test and burn-in these components and deliver to the contractor depot maintained under Contract DASG62-97-D-0001. The contractor shall procure the initial item DOSS spares identified in Appendix H, perform test and burn-in of these spare components and deliver them to each site in the quantities specified in Appendix H in conjunction with upgrade of the DOSS at each site. The contractor shall procure the Depot DOSS spares identified in Appendix H, test and burn-in these components and deliver them to the contractor depot maintained under Contract DASG62-97-D-0001.

8.3.3 In-Plant Test Facility. The contractor shall procure the DOSS LAN and DOSS components listed in Appendix I and install them at the contractor's facility in Colorado Springs, CO. for use as a test-bed facility to configure, test and burn-in the components procured in pars 8.3.1 and 8.3.2 prior to shipment to destination, to develop and validate test and installation procedures and to generate and validate the revised operational and technical data delineated in the following paragraphs.

8.3.4 Engineering Change Proposal (ECP) The Contractor shall generate and submit an ECP for the modification of the DOSS and DOSS LAN IAW Contract Data Requirements List (CDRL) A007 and Revision of Product Drawings IAW CDRL A041 and Statement of Work (Appendix 6) of Contract DASG62-97-D001. Scope of the ECP is to include procurement, installation, and checkout of the hardware; identification of impacts to other existing DOCS subsystems; modifications to all the DOSS technical data as well as User Manuals; and NT and Unix training requirements for contractor and site personnel. The ECP shall also explicitly identify for all components the extent and applicability of manufacturer's warranties normally provided with the products as well as cost proposals for extension of coverage consistent with the existing maintenance philosophy. ECP shall be submitted not later than (NLT) 60 days after Contract DASG62-97-D-0001 is modified for this effort.

8.3.5. Modification Work Order (MWO). The contractor shall generate abbreviated MWOs IAW with CDRL A039 to implement modifications to the DOSS and DOSS LAN as delineated in the approved ECP submitted IAW par 8.3.4. There shall be separate MWOs for the DOSS LAN and DOSS modifications. The MWO covering the DOSS LAN shall include an appendix containing the draft change pages to the existing DOSS technical manual specific to the modification of the LAN. Each MWO shall include installation instructions and test and check out procedures. Test and check out shall encompass verification of functional and operational requirements including end to end connectivity over the DOSS LAN. Verification of each MWO including the associated installation instructions and test and check out procedures shall take place at Fort Monmouth NJ.

8.3.6 Site Survey. The Contractor shall perform a combined site survey for both the DOSS and LAN upgrades IAW CDRL A046 at each site to be modified. The site survey will verify the current configuration of the DOSS and LAN at the site and identify any impacts to the site facility. The Site Survey Report will be included as a site specific annex to the MWO for that installation.

8.3.7 Site Concurrence Memorandum. The contractor shall generate a combined Site Concurrence Memorandum (SCM) for both the DOSS and LAN upgrades IAW CDRL A045. The SCM will be included as a site specific annex to the MWO for that installation.

8.3.8 Test and Acceptance Report (TAR). The contractor shall submit a TAR IAW CDRL A044 subsequent to successful modification at each site of the DOSS or DOSS LAN IAW the approved ECP submitted under par 8.3.4. The scope of testing is to include end to end connectivity between the DOSS and other ODOC subsystems over the LAN.

8.3.9 Operator's Handbook. The contractor shall develop an Operator's Handbook IAW CDRL A010covering the following topics:

a. System Overview:
Analyze system operation at the block diagram level and explain the functioning of the system interfaces.

b. Backup/Restoral Procedures:
Explain the use of enterprise backup software for all the following systems:
. UNIX-based Servers

. VMS-based Servers
. NT Workstations

c. HCI Interface:
Explain the operation of the HCI interfaces to include the interfaces to use when interfacing with DIMS version 2.0 and DIMS version 3.0. The following HCI's will be covered:
. DIMS HCI
. Exceed Emulator (Legacy Systems)
. TeemTask 4207 Emulator (for DASA)

Verification of the procedures contained in the Operator's Handbook shall occur at Ft. Monmouth, NJ.

8.3.10 Provisioning Documentation. The contractor shall provide Design Change Notice (DCN) for Provisioning Technical Documentation, IAW CDRL A035 to reflect changes to the DOSS and DOSS LAN as delineated in the approved ECP submitted under par 8.3.4.

8.3.11 Engineering Data. The contractor shall provide Engineering Data for Provisioning IAW CDRL A036 to reflect changes to the DOSS or LAN as delineated in the approved ECP submitted under par 8.3.4.

8.3.12 Technical Manuals. The contractor shall create a new Technical Manual IAW CDRL A038 to reflect changes to the DOSS as delineated in the approved ECP submitted under par 8.3.4. Verification of the new TM shall take place at Fort Monmouth, NJ.

8.3.13 Repair Parts and Special Tools List. The contractor shall update TM-11-5895-1563-23P IAW A040 to reflect changes to the DOSS and LAN delineated in the approved ECP submitted under par 8.3.4.

8.3.14 Digital Files. The contractor shall deliver two copies of the final digital files for the Modification Work Order(s) (MWO(s)) and Technical Manual(s) (tm(s)) submitted to AMSEL-LC-COM-S-DN under CDRLS A038 and A039. The medium of delivery shall be CD-ROM unless otherwise mutually agreed to be the Government and the contractor. The digital files shall be merged text and graphics and shall allow editing of the text material. The word processor used for text shall be Word for Windows, version 97 or later. The contractor shall also supply digital files of the native graphics files (the original graphics files from which the final merged text and graphics files are made) for each illustration/graphic. The final combined text and graphics files must be visible on a standard monitor as clear and crisp as the hardcopy output of a postscript printer. The digital files shall be readable as described on a DOS computing platform.

8.3.15 Plant in Place Drawings. The Contractor shall update under CDRL A043 the Plant in Place Records and the Plant in Place Handbooks for the five DSCSOCs and DSCS Management Site in Colorado Springs, CO for all the changes implemented under this Task Order. Two hardcopies of the change pages, one completely new set of digitized documents, and two sets of drawings as appropriate will be delivered to SMDC-AR-SB within 30 days of the modification at each facility being completed. Digitized documents will be made with a software program that can be read by AUTOCAD LT 97.

8.3.16 Contractor Training. The contractor shall provide sufficient NT, UNIX and LAN training to its personnel to support installation, test and check out and maintenance of the modifications to the DOSS and DOSS LAN delineated in the approved ECP submitted IAW par 8.3.4.

8.3.17 Operator Training Course Update. The contractor shall revise the current course material used to provide the annual 80 hour block of training under Contract DASG62-97-D-0001 to include instructions on the operation of the reconfigured DOSS and the DOSS LAN.

8.3.18 Operator Training. After completion of equipment installation and test and check-out at each site, the contractor shall provide informal hands-on training to site personnel on the operations of the modified DOSS and DOSS LAN to include a review of the procedures contained in the Operator's Handbook prepared under par 8.3.9. Formal training will occur during the next regularly scheduled 80 hour block of training at each site under Contract DAAG62-97-D-0001.

8.3.19 Management. The contractor shall prepare and submit monthly reports on performance progress and cost status for all work accomplished on the hardware and software efforts. These reports will be integrated into the monthly reports currently submitted under CDRLs A001 and A002 for Contract DASG62-97-D-0001 in such a way that the information can be clearly identified.

8.4 MEETINGS, REVIEWS and TEST.

In-Process Reviews (IPRs), as well as informal Technical Exchange Meetings (TEMs) between the contractor and the Government shall be utilized to ensure that all contractual requirements are met. The contractor shall schedule and conduct a minimum of two IPRs to satisfy this requirement-one prior to the start of the upgrade of the DOSS LAN and the other prior to the start of the upgrade of the DOSS. In addition, the status of this project will be presented at the semi-annual Program Management Reviews conducted under Contract DASG62-97-D-0001. The Government reserves the right to schedule additional meetings and/or reviews as required.

8.4.1 Meeting Minutes. The contractor shall submit meeting minutes of the In-Process Reviews to the Government. As a minimum, the minutes shall outline all relevant issues, discussions, open issues, conclusions, open actions, and attendees at the meeting. The content of the report shall comply with CDRL A005, Meeting Minutes.

8.4.1.1 In-Process Review. The In-Process Review shall provide a review of the status of the approved modifications to the DOSS and DOSS LAN and the contractor's readiness to implement those modifications. The IPR shall focus on:

a. Issues related to installation including schedule, downtime and test and checkout and activation including risk resolution steps to be implemented

b. The availability of software needed to operate the new or modified hardware to be installed.

c. The addressing scheme to be implemented in conjunction with the DOSS LAN upgrade.

d. Issues related to training and transition.

e. The status of updates to design, operation, and support documents including the Operator's Manual..

During the IPR, the contractor shall provide sufficient data to demonstrate to the satisfaction of the Government their readiness to successfully implement the upgrades to the DOSS and DOSS LAN at operational facilities with minimal downtime and risk.

8.4.2 Test Readiness Review (TRR). Prior to the start of formal testing the contractor shall conduct a Test Readiness Review to demonstrate that the contractor is ready to perform formal testing. The contractor shall demonstrate that the modifications to the DOSS and DOSS LAN are correct and complete, the test procedures are acceptable to the Government, and that all resources necessary to perform the formal test are available

8.4.3 Formal Test. Formal testing shall be performed by the contractor to validate that the modifications to the DOSS or DOSS LAN meet functional and operational requirements including end to end connectivity across all possible configurations. Formal testing will occur at operational sites to be determined by DISA and ARSPACE. Formal test acceptance criteria shall be the successful completion of the installation test and check out procedures to be included in the MWO's. Upon successful completion of the Formal Test, the contractor shall submit to the Government a Test and Acceptance Report IAW with A044 documenting all formal test results. The report shall include, but not be limited to, test items completed, test items pass/fail result, test omissions and deviations, test anomalies, and test data.

8.5 DELIVERABLES OR PERFORMANCE REQUIREMENTS**.** Unclassified draft and final deliverables to the Technical Representative shall be provided through E-Mail. Final deliverables shall also be provided in hard copy. A hard copy transmittal letter shall be provided to the Contracting Officer and to the Contracting Officer's Representative for audit purposes. Deliverables shall be provided in Microsoft Word 97.

CDRL	DELIVERABLE	SUBMISSION DATA
A001	Monthly Performance and Cost Report (DOSS/DOSS LAN TO Para. 8.3.19)	SMDC-AR-CM, 1 copy. SMDC-AR-SB, 1 copy. Due the 15th of each month.
A002	Cost/Schedule Status Report (CSSR) (DOSS/DOSS LAN TO Para 8.3.19)	SMDC-AR-CM, 1 copy SMDC-AR-SB, 1 copy Due the 15th of each month.
A005	Meeting Minutes (DOSS/DOSS LAN TO Para. 8.4.1, In-Process Review)	SMDC-AR-CM, 1 copy. SMDC-AR-SB, 1 copy. DISA D3611, 1 copy. AMSEL-DSA-TSD, 1 copy. Due 30 days after meeting
A007	Engineering Change Proposals (ECP) (DOSS/DOSS LAN TO Para. 8.3.4, Engineering Change Proposal)	SMDC-AR-CM, 1 copy transmittal letter only. SMDC-AR-SB, 1 copy. DISA D3611, 1 copy. AMSEL-DSA-TSD, 1 copy. Due 60 days after DO award. Final due 30 days after receipt of Government's review comments. Gov't requires 45 days for review/comments.
A010	White Paper (DOSS/DOSS LAN TO Par 8.3.9, Operator's Manual)	SMDC-AR-CM, 1 copy transmittal letter only. SMDC-AR-SB, 1 copy. DISA D3611, 1 copy. AMSEL-DSA-TSD, 1 copy AMSEL-LC-COM-S-DN, 1 copy Due 180 days after DO award. Final due 30 days after receipt of Government review comments. Gov't requires 30 days for review/comments.

A035	Design Change Notice (DCN) (DOSS/DOSS LAN TO Para. 8.3.10, Provisioning Documentation)	SMDC-AR-CM, 1copy transmittal letter only. SMDC-AR-SB, 1 copy. AMSEL-DSA-TSD, 1 copy. AMSEL-LC-COM-S-DN, 1 copy. Due 30 days after contractor is notified of Government approval of design changes.
A036	Engineering Data for Provisioning (DOSS/DOSS LAN TO Para. 8.3.11, Engineering Data)	SMDC-AR-CM, 1 copy transmittal letter only. SMDC-AR-SB, 1 copy. AMSEL-DSA-TSD, 1 copy. AMSEL-LC-COM-S-DN, 1 copy. Concurrent with submission of DCN, A035.
A038	Scientific and Technical Reports (DOSS/DOSS LAN TO Para. 8.3.12, Technical Manuals)	SMDC-AR-CM, 1 copy transmittal letter only. SMDC-AR-SB, 1 copy. AMSEL-DSA-TSD, 1 copy. AMSEL-LC-COM-S-DN, as per subject CDRL except as follows: 30% IPR draft shall be two copies. 70% IPR draft shall be five copies. Allow one week for Government review/comments on 30% draft.
A039	Scientific and Technical Reports. (DOSS/DOSS LAN TO Para. 8.3.5, Modification Work Order)	SMDC-AR-CM, 1 copy transmittal letter only. SMDC-AR-SB, 1 copy. DISA D3611, 1 copy. AMSEL-DSA-TSD, 1 copy. AMSEL-LC-COM-S-DN, as per subject CDRL except as follows: There shall be no deliverable of a 70% IPR on these upgrades. Allow two weeks for Government review/comments on 30% draft.
A040	Scientific and Technical Reports (DOSS/DOSS LAN TO Para. 8.3.13, Repair Parts and Special Tool List)	SMDC-AR-CM, 1 copy transmittal letter only. SMDC-AR-SB, 1 copy. AMSEL-DSA-TSD, 1 copy. AMSEL-LC-COM-S-DN, 1 copy. Submit 30 days after delivery of accepted Provisioning Technical Documentation..

A041	Product Drawings and Associated Lists. (DOSS/DOSS LAN TO Para. 8.3.4, Engineering Change Proposal)	SMDC-AR-CM, 1 copy transmittal letter only. SMDC-AR-SB, 1 copy. AMSEL-LC-COM-S-DN, 1 copy. Draft drawings due 30 days after receipt of Gov't furnished originals. Final corrected drawings due 45 days after receipt of Gov't comments.
A043	Scientific and Technical Reports (DOSS/DOSS LAN TO Para. 8.3.15, Plant in Place Drawings)	SMDC-AR-CM, 1 copy transmittal letter only. SMDC-AR-SB, 2 hardcopies of all changed pages (including drawings) and full set of digitized documents. 30 days after modification of each facility
A044	Scientific and Technical Reports. (DOSS/DOSS LAN TO Para. 8.3.8, Test and Acceptance Report)	SMDC-AR-CM, 1 copy transmittal letter only. SMDC-AR-SB, 1 copy. DISA D3611, 1 copy. AMSEL-DSA-TSD, 1 copy. Test Report Draft due 30 days after completion of acceptance testing.
A045	Scientific and Technical Reports (DOSS/DOSS LAN TO Para. 8.3.7, Site Concurrence Memorandum)	SMDC-AR-CM, 1 copy transmittal letter only. SMDC-AR-SB, 1 copy. DISA D3611, 1 copy. AMSEL-DSA-TSD, 1 copy. Site Concurrence Memorandum due at least 90 days prior to installation.
A046	Scientific and Technical Reports (DOSS/DOSS LAN TO Para. 8.3.6, Site Survey Report)	SMDC-AR-CM, 1 copy transmittal letter only. SMDC-AR-SB, 1 copy. DISA D3611, 1 copy. AMSEL-DSA-TSD, 1copy. Survey must be conducted at least 120 days prior to installation. Report due 30 days after survey

APPENDIX A GFI - DOCUMENTS

a. Objective Defense Satellite Communications System (DSCS) Operations Control System (ODOCS) Architecture Description Document, 16 Feb 98.

b. Technical Manual, Operator's Manual with Maintenance Allocation Chart (MAC), DSCS Operational Support System, TM 11-5895-1563-10, Change 1, 31 Mar 98.

c. Technical Manual, Unit and Direct Support Maintenance Repair parts and Special Tools List for the DSCS Operational Support System, TM_11-5895-1563-23P, 1 July 96..

e. Technical Data Package for the DOSS

f. Joint Technical Architecture-Army, Ver. 5.0

g. Plant in Place Records

h. Plant in Place Handbooks

APPENDIX B: LAN Equipment Requirements

The following equipment is required for implementation of the LAN upgrade at each DSCS Control Facility. The equipment listed, is that proposed by the LAN upgrade study (SGS-TR-6698).

ITEM DESCRIPTION	PART NUMBER	MANUFACTURER
Chassis, 17-Slot w/2 Power Supplies	LE7312APS	Black Box
Converter, 10 Base-T/Fiber-ST	LE7314C	Black Box
Converter, 100 Base-T/Fiber-ST	LE7315C	Black Box
Chassis, 8-Slot	1200	Bay Networks
Power Supply	XLR1298PS	Bay Networks
Module, 16 Port, 100 Base-FX	XLR1216FX-A	Bay Networks
Module, 16 Port, 10/100 Base-T	XLR1216TX-A	Baynetworks
Module, CPU	XLR1297SF	Baynetworks

Appendix B-1: LAN Distribution Quantities

LAN Hardware Distribution

ITEM DESCRIPTION	PART NUMBER	APL	B210	B1210	BOC	COS	DCF	DOC1
Chassis, 17 Slot w/2 PS	LE7312APS	0	1	1	1		1	1
Converter, 10 Base-T/Fiber-ST	LE7314C	0	9	9	9		4	13
Converter, 100 Base-T/Fiber-ST	LE7315C	0	0	0	0		8	0
Chassis, Switch, 8-Slot	1200	0	1	1	1		1	1
Power Supply	XLR12980S	0	2	2	2		2	2
Module, 16-Port, 100 Base-FX	XLR1216FX-A	0	2	2	2		0	3
Module, 16-Port, 10/100 Base-T	XLR1216TX-A	0	1	1	1		1	1
Module, CPU	XLR1297SF	0	2	2	2		2	2
Optivity Management SW		0	0	1	1		0	1

LAN Hardware Distribution (Continued)

ITEM DESCRIPTION	PART NUMBER	DOC2	DISA HQ	DISA-E	DISA-P	FTG	GOSC	LOC
Chassis, 17 Slot w/2 PS	LE7312APS	N/A	1	1	1	0	N/A	1
Converter, 10 Base-T/Fiber-ST	LE7314C	N/A	3	4	4	0	N/A	9
Converter, 100 Base-T/Fiber-ST	LE7315C	N/a	0	8	8	0	N/a	0
Chassis, Switch, 8-Slot	1200	N/A	1	1	1	1	N/A	1
Power Supply	XLR12980S	N/A	2	2	2	2	N/A	2
Module, 16-Port, 100 Base-FX	XLR1216FX-A	N/A	2	0	0	0	N/A	2
Module, 16-Port, 10/100 Base-T	XLR1216TX-A	N/A	1	1	1	5	N/A	1
Module, CPU	XLR1297SF	N/A	2	2	2	2	N/A	2
Optivity Management SW		N/A	1	1	1	0	N/A	1

LAN Hardware Distribution (Continued)

ITEM DESCRIPTION	PART NUMBER	MOC	ROC	RSSC-C	RSSC-E	RSSC-P	SIR	
Chassis, 17 Slot w/2 PS	LE7312APS	1	1		1	1	1	
Converter, 10 Base-T/Fiber-ST	LE7314C	9	9		4	4	4	
Converter, 100 Base-T/Fiber-ST	LE7315C	0	0		8	8	8	
Chassis, Switch, 8-Slot	1200	1	1		1	1	1	
Power Supply	XLR12980S	2	2		2	2	2	
Module, 16-Port, 100 Base-FX	XLR1216FX-A	2	2		0	0	0	
Module, 16-Port, 10/100 Base-T	XLR1216TX-A	1	1		1	1	1	
Module, CPU	XLR1297SF	2	2		2	2	2	
Optivity Management SW		1	1		0	0	0	

APPENDIX C: ODOCS: Equipment Requirements

Following are selected minimum requirements for ODOCS hardware.

NT workstation:
DSCSOC: 4 four monitor NT's and 2 two monitor NT's.
DISA HQ: 6 two monitor NT's
Management Sites: 2 two monitor NT's

1. Processor – Dual 450 MHz Pentium II or latest Technology
2. Motherboard – 100 MHz bus
3. Bus – PCI (minimum of 4 slots available for standard video adapters)
4. Memory – Latest technology
5. Memory architecture – optimized for high throughput
6. Memory quantity – 512 Mbytes
7. Disk interface – UltraSCSI or Ultra2 if available
8. Disk performance – 10,000 RPM
9. OS – NT 4.0 Workstation
10. File system – NTFS
11. Networking – 10/100 Autosensing Ethernet (Full Duplex capable)
12. Audio – Soundblaster compatible 64 bit
13. CD-ROM – UltraSCSI, 12x or greater caddyless; software lockable to prevent unauthorized software installation
14. Video – Four standard adapters with 2D/3D acceleration; minimum of 8 MB onboard RAM and 1280x1024x True Color x >75 Hz refresh
15. Monitors – ~ 20" viewable; digital controls; MPR II; Energy Star; >= 1280 x 1024 x 75 Hz resolution
16 Removable 8.4 GB Hard Drive
17 LS-120 Super Drive software lockable to prevent unauthorized software installation

8400 Upgrade:

1. Addition of dual 300 MHz processor card – or – replacement of existing card and clock module with a new card based on the dual EV-5 21164 600 MHz Alpha chip and associated clock module.
2. Addition of 2 GB of memory (single board – available on used market for $25k)
3. Removal of existing PCI-EISA bridge and RAID controller.
4. Addition of UltraSCSI, FWD, based controller directly on main PCI I/O board
5. Removal of 10 Mbps Ethernet
5. 6. Addition of 100 Mbps Full Duplex Ethernet

New Disk Subsystem (RA 7000):

1. Dual controllers (redundant with cache, cache backup, cache shadowing)
2. 18 9.0 Gbyte UltraSCSI or Ultra2 disks (10,000 rpm)
3. 1 DLT 35 Gbyte UltraSCSI tape drives

1.

Printers:

DSCSOC: 4 Black & White; 2 Color
DISA HQ: 2 Black & White; 2 Color
Management Sites: 2 Black & White; 1 Color

1. 16 ppm or greater (black & white), 6 ppm or greater (color)
2. 600 x 600 dpi (black & white), 300 x 300 dpi (color)
3. Job sorting (left/right shifts in output tray or multiple destination trays)
4. Multiple paper trays with minimum capacity = 1 ream of paper (500 sheets)
5. 8.5 x 11 and 11 x 17 paper support
6. Capable of printing on viewgraph transparency media
7. Postscript 2 support
8. Truetype support
9. >= 32 MB RAM
10. 10/100 Mbps autosensing (if TX) Ethernet support
11. Unix LPD support

Appendix C-1: ODOCS Hardware and Software Distribution Requirements

ODOCS Hardware/Software Distribution (Basic Option)

ITEM DESCRIPTION	PART NUMBER	APL	B210	B1210	BOC	DCF	DOC1
EV5 21164 Processor		1	1		1		1
RA 7000		1	1		1		1
PCI Host Bus Adapter		1	1		1		1
10K RPM 9-GB Disk Drive		18	18		18		18
2-GB Memory Module		1	1		1		1
PCI/FAST ETHERNET		3	3		3		3
UNIX License		1	1		1		1
Base Workstation System		1	3	2	6	2	5
Additional CPU		0	3	2	6		5
Additional Video		0	1		4		3
Additional Memory		0	3	2	6	2	5
21” CRT Monitors		2	8	4	20	4	16
B&W Laser Printer		0	2	1	4	2	4
Color Laser Printer		0	1	1	2	1	2
Alphaserver Enterprise Backup Client		1	1		1		1
VAX Enterprise Backup Client		0	1		1	1	1
Alpha/VAX Workgroup Backup Client		2	2		2		2
NT Backup Server/Client		0	1	1	1	1	1
Anti-Virus Software		1	3	2	6	2	5
DLT Drives		0	1	1	2	1	2
RA7000 Software Media		1	1		1		1
X-Server		0	3	2	6	2	5
Projection System		0			1		1
ODOCS Workstation Consoles		0	3	2	5	2	5
SDC Workstation Console		0			1		1
Removable Hard Disk Kit		1	3	2	6	2	5
4207 Emulator		0	1	1	4	0	2
MS Office 2000 Professional		1	3	2	6	2	5

ODOCS Hardware/Software Distribution (Basic Option) (Continued)

ITEM DESCRIPTION	PART NUMBER	DOC2	DISA HQ	DISA-E	DISA-P	FTG	GOSC	LOC
EV5 21164 Processor		1				1		1
RA 7000		1				1		1
PCI Host Bus Adapter		1				1		1
10K RPM 9-GB Disk Drive		18				18		18
2-GB Memory Module		1				1		1
PCI/FAST ETHERNET		3				3		3
UNIX License		1				1		1
Base Workstation System		4	6	2	2	7	2	6
Additional CPU		4				7		6
Additional Video		3				5		4
Additional Memory		4	6	2	2	7	2	6
21” CRT Monitors		14	12	4	4	24	4	20
B&W Laser Printer		4	2	2	2	4	2	4
Color Laser Printer		2	2	1	1	2	1	2
Alphaserver Enterprise Backup Client		1				1		1
VAX Enterprise Backup Client		1	1	1	1	1	1	1
Alpha/VAX Workgroup Backup Client		2				2		2
NT Backup Server/Client		1	1	1	1	1	1	1
Anti-Virus Software		4	6	2	2	7	2	6
DLT Drives		2	1	1	1	2	1	2
RA7000 Software Media		1				1		1
X-Server		4	6	2	2	7	2	6
Projection System		1	1			1		1
ODOCS Workstation Consoles		4	6	2	2	6	2	5
SDC Workstation Console		1				1		1
Removable Hard Disk Kit		4	6	2	2	7	2	6
4207 Emulator		2	0	0	0	5	0	5
MS Office 2000 Professional		4	6	2	2	7	2	6
Alpha Server 800						1		

ODOCS Hardware/Software Distribution (Basic Option) (Continued)

ITEM DESCRIPTION	PART NUMBER	MOC	ROC	RSSC-E	RSSC-P	SIR	RSSC-G
EV5 21164 Processor		1	1				
RA 7000		1	1				
PCI Host Bus Adapter		1	1				
10K RPM 9-GB Disk Drive		18	18				
2-GB Memory Module		1	1				
PCI/FAST ETHERNET		3	3				
UNIX License		1	1				
Base Workstation System		6	6	2	2	2	
Additional CPU		6	6				
Additional Video		4	4				
Additional Memory		6	6	2	2	2	2
21” CRT Monitors		20	20	4	4	4	4
B&W Laser Printer		4	4	2	2	2	2
Color Laser Printer		2	2	1	1	1	1
Alphaserver Enterprise Backup Client		1	1				
VAX Enterprise Backup Client		1	1			1	
Enterprise Backup Client 4000				1			1
Alpha/VAX Workgroup Backup Client		2	2		1		
NT Backup Server/Client		1	1	1	1	1	1
Anti-Virus Software		6	6	2	2	2	2
DLT Drives		2	2	1	1	1	1
RA7000 Software Media		1	1				
X-Server		6	6	2	2	2	2
Projection System		1	1				
ODOCS Workstation Consoles		5	5	2	2	2	2
SDC Workstation Console		1	1				
Removable Hard Disk Kit		6	6	2	2	2	2
4207 Emulator		4	4	0	0	0	0
MS Office 2000 Professional		6	6	2	2	2	2

Appendix D: CORBA Server Option

ITEM DESCRIPTION	PART NUMBER	APL	B210	BOC	COS	DOC1	DOC2	FTG	MOC	LOC	ROC
Alphaserver 1200 (CORBA)		1	1		1	1	1	1	1	1	1
256 MB Memory (Alpha 1200)		1	1	1	1	1	1	1	1	1	1
7.2K RPM 4.3-GB Disk Drive		1	1	1	1	1	1	1	1	1	1
PCI to UltraSCSI Adapter		1	1	1	1	1	1	1	1	1	1
SCSI Cable		1	1	1	1	1	1	1	1	1	1
Console Monitors		1	1	1	1	1	1	1	1	1	1
Monitor PWR Cord		1	1	1	1	1	1	1	1	1	1

Appendix E: Subsystem Traffic Manager Option

ITEM DESCRIPTION	PART NUMBER	APL	B210	BOC	COS	DOC1	DOC2	FTG	MOC	LOC	ROC
Alphaserver 1200 (STM)		1	1	1	1	1	1	1	1	1	1
256 MB Memory (Alpha 1200)		1	1	1	1	1	1	1	1	1	1
7.2K RPM 4.3-GB Disk Drive		1	1	1	1	1	1	1	1	1	1
PCI to UltraSCSI Adapter		1	1	1	1	1	1	1	1	1	1
SCSI Cable		1	1	1	1	1	1	1	1	1	1
RAID Controller Units		1	1	1	1	1	1	1	1	1	1
Console Monitors		1	1	1	1	1	1	1	1	1	1
Monitor PWR Cord		1	1	1	1	1	1	1	1	1	1

Appendix F: RSSC-CONUS (MacDill, AFB) Option

RSSC-CONUS Option

ITEM DESCRIPTION	PART NUMBER	QTY
Base Workstation System		2
Additional Memory		2
21” CRT Monitors		4
B&W Laser Printer		2
Color Laser Printer		1
Enterprise Backup Client 4000		1
NT Backup Server/Client		1
Anti-Virus Software		2
DLT Drives		1
Chassis, 17 Slot w/2 PS	LE7312APS	1
Converter, 10 Base-T/Fiber-ST	LE7314C	4
Converter, 100 Base-T/Fiber-ST	LE7315C	8
Chassis, Switch, 8-Slot	1200	1
Power Supply	XLR12980S	2
Module, 16-Port, 10/100 Base-T	XLR1216TX-A	1
Module, CPU	XLR1297SF	2

Appendix G:LAN Hardware Sparing

LAN Spares Distribution

Description	Part Number	APL	B210	B1210	BOC	COS	DCF	DOC1	DOC2	DISA	DISA-E	DISA-P
Accelar 8 Slot Chassis	1200	0	0	0	0	0	0	0	0	0	0	0
17 Slot Chassis w/2 PS	LE7312APS	0	0	0	0	0	0	0	0	0	0	0
10 Base-T/Fiber-ST	LE7314C	0	1	0	1	0	1	1	0	1	1	1
100 Base-T/Fiber-ST	7E7415C	0	1	0	1	0	0	1	0	0	0	0
Power Supply	XLR1298PS	0	1	0	1	0	1	1	0	1	1	1
CPU Module	XLR1297SF	0	1	0	1	0	1	1	0	1	1	1
16 Port 100 Base-FX	XLR1216FX-A	0	1	0	1	0	0	1	0	1	0	0
16 Port Auto 10/100 Base-T	XLR1216TX-A	0	1	0	1	0	1	1	0	1	1	1

LAN Spares Distribution (Continued)

Description	Part Number	FTG	GOSC	LOC	MOC	ROC	RSSC-C	RSSC-E	RSSC-P	SIR	RSSC-G	DEPOT
Accelar 8 Slot Chassis	1200	0	0	0	0	0	0	0	0	0	0	1
17 Slot Chassis w/2 PS	LE7312APS	0	0	0	0	0	0	0	0	0	0	1
10 Base-T/Fiber-ST	LE7314C	0	0	1	1	1	1	1	1	1	0	3
100 Base-T/Fiber-ST	7E7415C	0	1	1	1	1	0	0	0	0	1	3
Power Supply	XLR1298PS	1	0	1	1	1	1	1	1	1	0	3
CPU Module	XLR1297SF	1	0	1	1	1	1	1	1	1	0	3
16 Port 100 Base-FX	XLR1216FX-A	0	0	1	1	1	0	0	0	1	1	3
16 Port Auto 10/100 Base-T	XLR1216TX-A	1	0	1	1	1	1	1	1	1	1	3

Appendix H: Distribution of ODOCS Spares

ODOCS Hardware Sparing

Description	Part Number	APL	B210	B1210	BOC	COS	DCF	DOC1	DOC2	DISA	DISA-E	DISA-P
EV-5 21164 Processor	76U91-Ax	0	0	0	1	0	0	1	0	0	0	0
RA 7000	KZPBA-CB	0	0	0	1	0	0	1	0	0	0	0
2 GB Memory Module	MS-7CC-FA	0	0	0	1	0	0	1	0	0	0	0
PCI/Fast Ethernet	DE500-FA	0	1	0	1	0	1	1	0	1	1	1
RAID Disk Controller	KZPSC-BA	0	0	0	1	0	0	1	0	0	0	0
10K RPM 9-GB Disk Drive		0	0	0	1	0	0	0	0	0	0	0
Base Workstation		0	0	0	1	0	0	0	0	0	1	1
Additional CPU		0	0	0	1	0	0	0	0	0	1	1
21” CRT Monitor		0	1	0	1	0	1	1	0	1	1	1
256 MB Memory Module		0	1	0	1	0	1	1	0	1	1	1
DLT Drives		0	0	0	1	0	0	1	0	0	0	0
AS1200 CPU	KN307-DB	0	0	0	1	0	0	1	0	0	0	0
PCI to UltraSCSI Adapter	KZPBA-CA	0	0	0	1	0	0	1	0	0	0	0
AS1200 256MB Memory	MS300-DA	0	0	0	1	0	0	1	0	0	0	0
AS1200 PS w/Fan	30-43120-02	0	0	0	1	0	0	1	0	0	0	0
CD-ROM	30-49542-01	0	0	0	1	0	0	0	0	0	0	0
LS-120 Disk Drive		0	0	0	1	0	0	0	0	0	1	1
8.0 GB Disk Drive		0	0	0	1	0	0	0	0	0	1	1
Pci 10/100 Network Card		0	0	0	1	0	0	0	0	0	1	1

ODOCS Hardware Sparing (Continued)

Description	Part Number	FTG	GOSC	LOC	MOC	ROC	RSSC-C	RSSC-E	RSSC-P	SIR	DEPOT	RSSC-G
EV-5 21164 Processor	76U91-Ax	0	0	1	1	1	0	0	0	0	3	0
RA 7000	KZPBA-CB	0	0	1	1	1	0	0	0	0	2	0
2 GB Memory Module	MS-7CC-FA	0	0	1	1	1	0	0	0	0	2	0
PCI/Fast Ethernet	DE500-FA	1	0	1	1	1	1	1	1	1	3	1
RAID Disk Controller	KZPSC-BA	0	0	1	1	1	0	0	0	0	1	0
10K RPM 9-GB Disk Drive	DS-RZ1DD-VW	0	0	1	0	0	0	0	0	0	3	0
Base Workstation		0	0	1	0	0	0	0	1	1	2	0
Additional CPU		0	0	1	0	0	0	0	1	1	2	0
21” CRT Monitor		1	0	1	1	1	1	1	1	1	3	1
256 MB Memory Module		1	0	1	1	1	1	1	1	1	3	1
DLT Drives		0	0	1	1	1	0	0	0	0	1	0
AS1200 CPU	KN307-DB	0	0	1	1	1	0	0	0	0	1	0
PCI to UltraSCSI Adapter	KZPBA-CA	0	0	1	1	1	0	0	0	0	1	0
AS1200 256MB Memory	MS300-DA	0	0	1	1	1	0	0	0	0	1	0
AS1200 PS w/Fan	30-43120-02	0	0	1	1	1	0	0	0	0	1	0
CD-ROM	30-49542-01	0	0	1	0	0	0	0	0	0	3	0
LS-120 Disk Drive		0	0	1	0	0	0	0	0	0	3	0
8.0 GB Disk Drive		0	0	1	0	0	0	0	0	0	3	0
PCI 10/100 Network Card		0	0	1	0	0	0	0	0	0	3	0

Appendix I: In-Plant Test Facility

In-Plant Test Facility

ITEM DESCRIPTION	PART NUMBER	QTY
Alpha Server 8400 (Refurbished)		1
EV5 21164 Processor		1
RA 7000		1
PCI Host Bus Adapter		1
10K RPM 9-GB Disk Drive		18
2-GB Memory Module		1
PCI/FAST ETHERNET		3
UNIX License		1
Base Workstation System		1
Additional CPU		1
Additional Memory		1
21” CRT Monitors		2
B&W Laser Printer		1
Color Laser Printer		1
Alphaserver Enterprise Backup Client		1
VAX Enterprise Backup Client		1
Alpha/VAX Workgroup Backup Client		1
NT Backup Server/Client		1
Anti-Virus Software		1
DLT Drives		1
RA7000 Software Media		1
X-Server		1
ODOCS Workstation Consoles		1
SDC Workstation Console		
Removable Hard Disk Kit		1
4207 Emulator		1
MS Office 2000 Professional		1

In-Plant Test Facility (Continued)

ITEM DESCRIPTION	PART NUMBER	QTY
Chassis, 17 Slot w/2 PS	LE7312APS	1
Converter, 10 Base-T/Fiber-ST	LE7314C	9
Converter, 100 Base-T/Fiber-ST	LE7315C	0
Chassis, Switch, 8-Slot	1200	1
Power Supply	XLR12980S	2
Module, 16-Port, 100 Base-FX	XLR1216FX-A	2
Module, 16-Port, 10/100 Base-T	XLR1216TX-A	1
Module, CPU	XLR1297SF	2